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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/697,246

10/31/2003

Nobuyuki Nonaka

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EXAMINER

NGUYEN, DAT

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

03/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/697,246	Applicant(s) NONAKA, NOBUYUKI	
	Examiner DAT T. NGUYEN	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office action is responsive to the amendments filed on 08/06/2007 and further the pre-brief appeal conference request wherein it was determined that prosecution would be reopened.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang et al. (U.S. Patent Application Publication No. 2003/0016318).

Liang et al. disclose the invention substantially as claimed including:

a color display unit having a pixel unit that is formed by arranged each one of a plurality of kinds of pixel electrodes that display predetermined colors (i.e. electrodes representing the colors red, green, and blue);

one pixel being constituted by a pair of adjacent pixels units or sub-pixels of the whole pixel (figure 3);

the pixels being arranged in a matrix in an "xy plane", and as seen in figure 3, the pixel electrodes of the same color are arranged in the y direction and

the same pattern is continuously arranged in the x direction to form a stripe (figure 3); and

an information signal that is sent to the pixel electrodes at the same time, to both sets of one of the plurality of colors, such as sending an information signal to both electrodes that represent the color red to enable both electrodes to present a red lighting at the same time (paragraphs 0017-0019).

Liang et al. explicitly lack disclosing the pitch is equal to $\tan(\pi/180/35)(d/2)(1+\alpha)$ or less than $\tan(\pi/180/35)(d)$. In this equation: d is the distance at which the player views the display unit from in a normal posture, wherein specifically d is between 300-500 millimeters and α is a correction factor, wherein specifically α is $\pm 0.1-0.2$ (interpreted as adjusting the pitch by 10-20% in either direction).

A user of the display unit viewing the display at a distance d from the display unit, wherein d is between 300-500 millimeters or 11.81-19.69 inches, respectively, would have obvious to any person of ordinary skill in the art or any person at all really. One would be motivated to use a d as set forth for at least two simple reasons: (1) most user's arms are not much longer than 3 feet or 914 mm, thus, for comfortability of the user, the user would obviously need to be seated at least half way closer than their arm span to use the display unit and any associated hardware. (2) the average person cannot sit too close to a display unit, such as 3 inches away or sit too far from the display, such as 10 feet away, for the simple reason that eyes get irritated in either situation, as they're being

overused and stressed to focus on what is shown on the screen, thus, for comfortability of the user, the user would obviously need to be seated at a reasonable distance to view the contents of the display, and in a gaming device environment. Therefore, the Examiner submits that specifying a distance, d , being 300-500mm would have been obvious to one of ordinary skill in the art in order for a user to interact with the display and still be a comfortable distance away, such that the user's eyes do not get irritated.

A pitch, as notoriously well known and defined in the art, is the distance between the pixel units. When implementing the given equation of pitch and using the lowest most and highest most correction factor, the range of pitches appears to be 0.12 mm to 0.2989 mm. These values are well known "average" pitch values, such that one of ordinary skill in the art would find it obvious to have the pitch at the lower end of the range when a user is at a closer distance and further away when the user is at a further distance from the display unit, so that a user can make out what is on the screen. For instance, if the dot pitch used was at the high end of 0.2989 mm and the user was around 300 mm away, everything would look very big to the user, putting stress on the eyes. The vise versa would be true at a pitch of 0.12 and a distance of 500, everything would be too small. Thus, it appears, the claimed formula is used to mask the end result of having well-known average pitch values as the range of possible pitch values.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Liang et al. to implement the specific the formula discussed above or any

equivalent formula, using the range of 300-500 mm as the distance away the user's eyes are, to obtain the same average well-known range of pitch values in order to provide a display unit with suitable sharpness and viewability for users of a gaming machine, who need to be retained for their long-term use of the gaming machine, which generates revenue for the gaming establishment.

It should be noted that the Applicant may submit evidence to show that the claimed ranges are critical, such as the claimed ranges may achieve unexpected results relative to what the Examiner has stated is well known in the art. See MPEP 2144.05, section III. In the above rejection, the prior art is one of ordinary skill's knowledge in the art.

Regarding claim 8, although Liang et al. fails to explicitly teach the use of the display as a LCD provided in a game board. However it is notoriously well known in the art to use such LCDs in game boards and would be a mere matter of routine to one of ordinary skill in the art to adapt the display to a game board since it is known that LCDs provide better picture quality and take up less space than conventional CRTs.

Response to Arguments

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAT T. NGUYEN whose telephone number is (571)272-2178. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert E Pezzuto/
Supervisory Patent Examiner, Art Unit 3714

Dat Nguyen